

www.france-etuves.com

# XM RANGE MODULAR OVENS

# XM MODULAR OVENS up to 200/300°C

The XM modular ovens range is designed to be compatible with the size of the product. For applications such as polymerization of composite materials, thermal treatment, coating, drying...

# An exclusive modular design!

The basic XM oven is composed of a front double leaf door, a module and a back part. The whole volume of the oven depends on the number and on the size of the assembled modules.

# 7 basic volumes

From 6000 liters up to 24000 liters

# A robust construction for great performances.

Internal and external sheets made of steel. Modern design. White and blue epoxy paints. Reduced energy consumption, excellent thermal stability.  $\emptyset$  60 mm access port for a simplified calibration. 3 light points per module activated at doors opening.

# Adjustable air change.

Wide air inlet and outlet. Releases are evacuated efficiently. Opening adjustable from the control panel.

### An incredible heating power.

Rapid heating-up.

# An amazing temperature homogeneity!

Each module gets its own ventilation system. Inner air is sucked in the top part, heated by the heating elements then blown into the working volume. Air flow is powerful for surprising results.

# Work safely.

An independent electronic safety (class 3.1) and an independent mechanical safety with manual reset (class 2.0) per module. Heating is cut off in case of anomalies (exceeded set point temperature, ventilation failure,...). Visual and sound alarms. Stop fan and heating when the door is open.



Safety inner handle

# An accurate temperature control.

Each module gets its own control system.

Programmable controller with touch screen. Easy-to-use. Measure by thermocouple. Customizable according to the installed options. Complete management and display in real time of set point temperatures and measured ones, of pressure in the vacuum bags, of air change rates,... Safeties display, alarms display and management.

An easy loading, without weight limit.

Various possible arrangements of the floor of the oven.

# **OPTIONS**



Door with viewing windows



Vertical lift door



Stainless steel inner sheets



Additional module



Fan speed controller



Air change and cooling extractor



Temperature profiler and recorder



Oven process control system



Ø 60 mm access port



Thermocouple plug



Simple vacuum port



Controlled vacuum plug



Homogeneity control certificate



Data logger with 2 channels

# **ACCESSORIES**



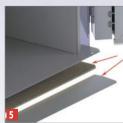
Portable paperless recorder



Thermocouple J probe



Pump unit



Insulation plate + access ramp





**XM24** 

1 Temperature extension max 300°C

- 2 Arrangement of the floor of the oven Insulation, rails, access ramp, ...
- 3 Door with viewing windows
- 4 Vertical lift door
- 5 Stainless steel inner sheets
- 6 Additional module
- 7 Fan speed controller
- 8 Air change and cooling extractor

Force the insertion of fresh air into the oven. Adjustable flow.

#### 9 Temperature profiler and recorder

Large graphical display. Real-time monitoring of temperatures. Allows the creation of programs. Record the temperature measured. 3 extra channels. With USB and RJ45 plugs.

#### 10 Oven process control system

Full and secure control of your oven. PC with large touch screen, easy to use. All data is stored and available from any computer on the network.

#### 11 Ø 60 mm access port

Centered on the left side. Allows the passage of cables or sensors.

- 12 Plug for thermocouple J probe (x8)
- 13 Simple vacuum port

Connector inside. Manual external valve for vacuum.

#### 14 Controlled vacuum port (x4)

Plugs for vacuum and measurement. Self-sealing quick connect. Solenoid valve outside. Check the pressure on the ramp and on each plug.

#### 15 Homogeneity control certificate for 1 temperature

At 105°C, 150°C or 200°C. Control report of the temperature measured at 9/15 points in the working volume. According to FD X 15-140, AMS 2750E, IGC 04-63-100.

#### 1 Data logger with 2 channels

Saves the temperatures measured by two mobile

#### Software for data logger with 2 channels

Can set data logger and retrieve stored data.

#### 2 Portable paperless graphic recorder

Full color screen display. Real monitoring of temperature changes. With USB and RJ45 plugs, and 4 or 6 connectors for mobile sensors.

# Thermocouple J probe length 3 m

With plug. Accessory for recorders.

#### 4 Pump unit

Includes: vacuum pump(s), vacuum tank(s), valves, vacuum measure and control, filters.

# 5 Insulation plate + access ramp

Protects your floor from heat.

# **TECHNICAL DATA FOR EACH MODULE**

	XM06	XM07.5	XM08	XM09	XM10	XM12	XM24
Working volume (L)	6000	7500	8000	9000	10000	12000	24000
				SIZES			
Internal width (mm)	2000	2500	2000	3000	2500	3000	4000
Internal depth (mm)	1500	1500	2000	1500	2000	2000	2000
Internal height (mm)	2000	2000	2000	2000	2000	2000	3000
External width* (mm)	2650	3150	2650	3650	3150	3400	4816
External height* (mm)	2970	3086	3086	3086	3212	3212	4548
Weight** (kg)	800	720	970	840	935	1020	2425
Weight (module+door+fixed back)** (kg)	1300	1300	1470	1500	1515	1680	3700
	PERFORMANCES						
Temperature range (°C)	Ambient temperature + 20°C up to 200°C (300°C optional)						
Temperature fluctuation (+/- °C)	< 0.2						
Homogeneity at 150°C*** (+/- °C)	< 3						
Number of air inlet / Diameter (mm)	1/1	.00	1 / 125				1 / 150
Number of air outlet / Diameter (mm)	1 / 100 1 / 125					1 / 150	
Number of fan engine	1 per module						
Ventilation rate (m³/h)	5000	5000	6000	6000	8000	8000	16000
Max air exchange, without extractor (m³/h)	250	250	300	300	450	450	500
	ELECTRICAL DATA						
Heating power (kW)	33	33	44	44	55	55	88
Engine power (W)	1500	1500	2200	2200	3700	3700	7500
Electrical supply	400V ~3P 50Hz						

<sup>\*</sup> Some options may change the oven's sizes

# store.france-etuves.com





65/67 rue Auguste Meunier 77500 Chelles, FRANCE

> T: +33 1 64 21 30 60 F: +33 1 64 21 30 86

<sup>\*\*</sup> Approximate weight

<sup>\*\*\*</sup> According to FD X 15-140